

A NEW CICHLID FISH IN THE LIMPOPO BASIN

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The fish to be described has been known as *Serranochromis thumbergi* (Castelnau), but I recognized it as distinct some years ago when I handled a specimen from the collection of the Transvaal Museum. I was unwilling to describe it from a single specimen, but I have since received five more from Mr. S. S. du Plessis which enable me to characterize the species. Although related to *Serranochromis* it combines characters which suggest an independent though neighbouring point of divergence from *Haplochromis* and I have given it a new generic name.

ACKNOWLEDGEMENTS

I am grateful to Dr. V. Fitzsimons of the Transvaal Museum for the loan of a specimen of this species and to Mr. S. S. du Plessis for supplying the five which have been described as holotype and paratypes. I acknowledge too the patience of interested fishery research and development officers who have waited while I studied specimens of *Haplochromis* and related genera from the Zambezi and neighbouring basins so that I could judge the systematic position of this species on the broadest basis before naming it. I have seen types of most of the species of this region and am satisfied that it can be identified with none of them.

Chetia gen. n.

Type *C. flaviventris* sp. n.

From *Cheti*, a name given in Nyasaland to a yellow weaver-bird, in reference to the yellow colour on the type species and by analogy with the Afrikaans name *kanariekurper*.

Piscivorous cichlids resembling *Haplochromis*, but without any ventral vertebral apophysis for the attachment of the air-bladder; differing from *Serranochromis* in retaining a minor cusp on at least some of the teeth of the jaws up to a standard length of 70 mm. and in having usually a lower number of vertebrae (31-33) and of soft dorsal rays (11-12). As in both these genera, the apophysis for the upper pharyngeal bones is formed from the parasphenoid in the middle and the basioccipital at the sides. Some of the scales are finely ctenoid in the young, but at the sizes examined most or all are cycloid, often with a small group of fine granulations posteriorly. The caudal fin is truncate.

Lichnochromis, a monotypic Nyasan genus which also falls within most of this definition, differs in its typical Nyasan colour-pattern of an oblique dark band from nape to caudal, and in the emarginate and heavily scaled caudal fin, as well as in the produced snout (more than half of the length of head) and expanded, beak-like premaxillary bones.

Chetia flaviventris sp. n.

Serranochromis thumbergi (nec Castelnau), du Plessis & Groenewald, 1953, p. 41, 2 figs.

Description of six specimens 71–117 mm. in standard length. The proportions in square brackets are from du Plessis & Groenewald's figure of a male, evidently a larger specimen.

Proportions in hundredths of standard length:

Depth of body 29·6–33·3 [35·5]
 Length of head 33·5–35·4 [31·3]
 Length of caudal peduncle 15–17
 Length of pectoral fin 21·7–24·7

Proportions in hundredths of length of head:

Length of snout 34·0–38·0
 Diameter of eye 21·25–26·0 [19·2], negatively allometric
 Depth of preorbital 18·0–22·5 [23·1], positively allometric
 Interorbital width 18·7–21·1
 Length of lower jaw 43·4–47·9
 Length of premaxillary pedicels 30·0–33·8
 Width of lower pharyngeal bone 25·0 (1 specimen)

Snout weakly and evenly decurved. Cleft of mouth at an angle of 20°–30° with the horizontal; maxillary extending to below some part of anterior half of eye. Five horizontal series of scales on the cheek. Gill-rakers on the anterior arch 3 or 4 + 1 + 9 or 10. Teeth in 2 series with a few anterior teeth forming a third series in upper jaw; in lower jaw in 2 series, the inner of up to 12 teeth; 44–50 teeth in outer series of upper jaw. All teeth conical, curved in the specimens of more than 100 mm. S.L., part conical and part spear-shaped with a single point in two of the others, some spear-shaped and some with a main and a minor cusp in two specimens of 71 and 85 mm. s.l.

Lower pharyngeal narrow, with a short anterior blade and slender pointed teeth with a minor cusp or shoulder.

Dorsal XV 11 (one) or XV 12 (five). Anal III 9 (three) or III 10 (three). Caudal truncate, in larger specimens with rounded corners. Caudal peduncle 1·3 to 1·5 times as long as deep.

Scales 34 in a longitudinal series including the upper lateral line, 5–6 between origin of dorsal and lateral line, 5 or 6 between bases of pectoral and pelvic fins.

Vertebrae 31–33, comprising 15 abdominal and 16–18 caudal.

Colour pattern in preserved specimens: a shadowy mark between the eye and maxillary (lachrymal mark); a dark opercular spot and a series of dark blotches from this to the base of the caudal along the middle of the side, more or less connected posteriorly to form a band; a less complete series on the upper lateral line and a vague series from nape along base of spinous dorsal. [These body-markings commonly appear in dead or dying specimens of *Haplochromis* and its relatives and also in certain physiological or emotional states, and are generally more marked in the young.] Soft dorsal and caudal with series of small dark spots.

Life-colours (du Plessis & Groenewald, 1953): belly bright yellow (giving it the vernacular name of *kanariekurper*); anal fin with bright red dots which are more plentiful in males than in females.

Breeding: a mouth-brooder, the female carrying the eggs (du Plessis & Groenewald, 1953).

Food: the adult dentition is piscivorous and du Plessis & Groenewald report that 'the fish is a predator, thriving on small fish, insects and snails'. Since these authors identified this species with *Serranochromis thumbergi*, which was once mistakenly reported as feeding on snails, this account of the *kanariekurper's* diet should not be accepted without confirmation on the Limpopo populations.

Distribution: known only from the Limpopo basin, 'mostly in the dry western part of the Transvaal', where 'it can withstand the severe cold of the highveld' (du Plessis & Groenewald, 1953).

Size: my largest specimen is about $5\frac{3}{4}$ " in over all length, and du Plessis & Groenewald (1953) state that it does not grow large enough to be valued for sport. Judging from the relative size of the eye and the depth of body their figured male must be 7" or 8".

Material described: B.M. (N.H.) 1957.11.16.1-3. holotype, ♂ 106 + 25 mm.; paratypes, 73 + 18 & 93 + 22 mm.; South African Museum: paratypes 71 + 17 (S.A.M. 23058) & 85 + 21 mm. (S.A.M. 23059); all from Buffelspoort Dam (district of Rustenburg, Transvaal) in the Sterkstroom, tributary of Crocodile R., Limpopo system; presented by Mr. S. S. du Plessis. Transvaal Museum no. 8676, 117 + 30 mm.

Distinguishing characters: this species has hitherto been misidentified as *Serranochromis thumbergi* under which name two other distinct species have been confused, *S. thumbergi* (Castelnau) and *S. robustus* (Günther). Both the latter species are more elongate than *C. flaviventris*, the former having 37 vertebrae of which 18-20 are abdominal, the latter 34-36 vertebrae, of which 16-18 are abdominal. The extra length also shows in the scale-count, 39-40 in *S. thumbergi* and 36-38 (39) in *S. robustus*, and in the dorsal rays, XVII-XVIII 13-14 in *S. thumbergi*, XV-XVI 14-16 in *S. robustus*. The smallest specimens of these

species that I have seen, respectively 65 and 54 mm. in standard length, have simple conical teeth as in the adult.

Neither *S. thumbergi* nor *S. robustus* is reliably reported from the Limpopo basin.

The colours of *Serranochromis thumbergi* and *S. robustus* are described by Messrs. G. Bell-Cross and M. A. E. Mortimer in a set of mimeographed notes of which they have kindly sent me a copy. They refer to them respectively as species B and C, but their identity is clear from the accompanying descriptions. *S. thumbergi* is grey-green with no bright yellow colour ventrally. *S. robustus* is much darker, but breeding specimens are described as having 'a deep chrome yellow flush on throat and belly'; Nyasa specimens seen alive by me had not this yellow colour, but were rich green or blue, sometimes with black horizontal bands.

REFERENCE

- DU PLESSIS, S. S. & GROENEWALD, A. A. 1953. The kurper of Transvaal. *Fauna & Flora, Transv. prov. Adm.*, **3**, 35-43.